Work Orde February-21-13	er ID 97699 12:40:52 PM		*976	99*						Page 1
Item ID: Revision ID: Item Name:	D2353 Stiffener		Accept	*N900		100)*	Setup Star Stop	IV	S1* S2*
Start Date: Required Date: Reference:	3/18/13 Start Qty: 12.0 3/18/13 Req'd Qty: 12.0	• •		Cust Item I Customer:	D:					
Approvals:	Process Plan: MC5 QC:	Date: <u> 3 02 - 2 </u> Date:	Tooling: SPC (Y/N):		ate:			Run Star Stop	171	R1* R2*
Sequence ID/ Work Center II	Operation Description	·	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr									
D2353	Rev C	•								
*100 *100* Waterjet FLOW CNC Waterj			0.00 0.00 Prog Rev: C	2-			12			045) 05 13.8.10
1.10 QC Quality Control	QC2- Inspect parts o	ff machine FAI/FAIB	0.00				<u>12</u>			AS 05 13.03 10
120 *120* QC	QC8- Inspect parts -	second check	0.00 SHP B3 P				ĴΩ			

Quality Control

											DQA:	Date	·
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORI	MANCE / UPDATE		QA Closed:	 Date:	:
Work Ord	or:					DISPOSITION			AGAIN	IST DE	PARTMENT	/PROCESS	
Part I	– _ No.					Rework Scrap Use-as-is Work Örder Update		1	Skid-tube Crosstu Machining Small F noforming Finish Large Fab Compos	ab ing	ı	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Cr	nief Eng	Description		Date .	Verification	QC Inspector
Doc/Data						-							
Equip/Tooling	П				Ì								
Operator	П												
' Material	П												
Setup	\square		ļ i										
Other	П										;		1
Process	H						1						
Supplier	П						İ						
Training	П												
Unapproved	П												·
			-			F	AUI	LT CATE	GORY				
Landi	ing G	ear				General		_			_		·.
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Ĉentre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks			. [Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
	П	Crushed/0	Crimped.			Burrs		Instruct	ions Incomplete/Unclear		Part Lost/M	issing	Wrong Stock Pulled
	П	Cuffs				Contamination		Mainte	enance		Part Moved	_	
	П	Heat Trea	t			Countersink		Mislabe	eled		Positioned \	Wrong	

Out of Calibration

Out of Sequence

Outside Dimensions

Power Loss/Surge

Other

Misread

Offset

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde February-21-13		,		*976	399*					Page 2
Item ID: Revision ID: Item Name:	D2353 Stiffener			Accept	*N900	<u> </u>) ()*	Setup Star Stop	I VI	S1* S2*
	3/18/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item Customer				, ,	17
Approvals:	Process Pl	lan:	Date:	Tooling:		Date:		Run Star	* *N	R1*
лургочиз.			Date:	SPC (Y/N):		Date:		Stop	1	R2*
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool# Plan Coo		Reject Qty	Reject Number	Insp. Stamp
130 Brake NC		NC BRAKE Memo Bend per Dv	vg D2353	0.00			12			13(o
140 *.1 \(\Delta \cdot \) QC Quality Control		QC5- Inspect part comple Memo		0.00 27 0.00 15 3	15		<u>[]</u>			
150 *150*		Chemical Conversion Co	oat per QSI005 4.1	0.00			12	H	2133:	-/4/

0.00

Memo

150 HandFinish

Hand Finishing

NCR: Y	'es / No				WORK ORDER NON-O	CON	FORM	MANCE / UP	DATE			
										QA Closed:	Date	
Work Orde	or:				DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Work Orac					Rework	7		Skid-tube	Crosstube		Water Jet	Engineering
Part N	lo.				Scrap	1 I	1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is] [Thern	noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR N	lo			··-	Work Order Update			Large Fab	Composite		Supplier	
		T		Danasi	ation of work and an undete		itial	Λ 6:	tion	Sign &	-	1
Root	Data	Chan	04		ption of work order update or Non-conformance	1	nitial ef Eng	1	ription	Date	Verification	QC Inspector
Cause	Date	Step	Qty		or Non-comormance	Cili	ei ciig	Desc	приоп	Date	vermeation	QC IIISPECTOI
Doc/Data												
Equip/Tooling				,							,	
Operator	-											•
Material		1										
Setup					•							
Other Process												
Supplier												
Training	\dashv											
Unapproved	-											
onapproved 1		L	<u> </u>		F	AULI	CATE	GORY			<u>L</u>	<u></u>
Landir	ng Gear				General							
[Bending				Bend		Grain			Ovalized		Pressure/Forced
	Centre No	ot Conce	ntric to	o/s	BOM/Route	\Box	Hardwa	ire		Over/Under	tolerance	Temperature/Cure
Ī	Cracks				Broken/Damaged		Inspecti	ion Incomplete		Part Incorre	ct [Weld
	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	enance		Part Moved		
Ī	Heat Trea	it			Countersink		Mislabe	eled		Positioned V	Vrong _	<u>.</u>
	Inspection	n Strip in	Tube		Cut Too Short		Misread	b		Power Loss/	Surge	Other
	Ripples in	Bend			Drill Holes		Offset					
. [Torque W	/aves in E	Extrusion	n [⊢		Out of Calibration					
. [Turning S	equence			\dashv \dashv \dashv		Out of Sequence					

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord			·- · · ·	*976	99*							Page 3
Item ID: Revision ID: Item Name:	D2353 Stiffener			Accept	*N9000	140°	100)*	Setup	Start Stop	*NS	S1*
Start Date: Required Date Reference:	3/18/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item ID Customer:) :					IN.	7/
Approvals:	Process F	Plan:	Date:	Tooling: SPC (Y/N):	Dat				Run	Start Stop	*NF	₹1* ₹2*
Sequence ID/ Work Center 155 *155* QC Quality Control	ID	Operation Description QC7-Inspect Chemical Co	nversion Coat	Set Up/ Run Hours 0.00	Tool ID		Plan Code	Accept Qty	Qty	ľ	Reject Number	Insp. Stamp
*160 *160* Powdercoat Powder Coating M1 23	480	Black Sandtex(Ref:4.3.5.7 Memo START TIME	2-4	0.00 5 0.00 OVEN TEMPERATURE 3 7/5	:		16	(X)	1	M-J	L 13,	lu3/2/
170 *170* QC		QC3- Inspect Part Finish Memo		0.00				12	¥	Ø	Il c	18-2/2

Quality Control

NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORI	//ANCE / UPDATE				
											QA Closed:	Date	2:
Work Orde	er: _					DISPOSITION	7			_	PARTMENT,	_	
Part I	_					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Crosst Machining Small noforming Finish Large Fab Compo	Fab ning	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root Cause		Date	Step	Qty	ł	ption of work order update or Non-conformance	1	Initial nief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
							AUI	T CATE	GORY	•		 	
Landi		Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspection	Crimped it n Strip in Bend	Tube		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misreac Offset	on Incomplete ions Incomplete/Unclear enance eled		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	<u> </u>	Torque W	aves in E	xtrusio	n	Drawing		Out of 0	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde February-21-13				*976	399*							Page 4
Item ID: Revision ID:	D2353		,	Accept	*N9000	1401	וחר)*	Setup	Start Stop	*N.	S1*
Item Name: Start Date: Required Date: Reference:	Stiffener 3/18/13 3/18/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item ID: Customer:	:				Этор	*N:	S2*
Approvals:		lan:	Date:	Tooling: SPC (Y/N):	Date				Run	Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center II 180 *180* Packaging Packaging	D	Operation Description Identify as per dwg & Stock	k Location:	Set Up/ Run Hours 0.00	Tool ID		Plan Code	Accept Qty	Re	•	Reject Number	Insp. Stamp
*190 *190* QC Quality Control		QC21- Final Inspection - V Memo	Vork Order Release	0.00				<u> </u>	- 1	3/3	1/25 N	W.

13-3-25

NCR: Y	es / No				WORK ORDER NON-	CONI	FUKI	VIANCE / UP	VDATE	QA Closed:	Date	:
Work Orde	ar:				DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	•
Part N	lo				Rework Scrap Use-as-is Work Order Update		f Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
WCKIV					Work Order opdate	_		raige rab	composite		Supplier_	
Root				Descri	ption of work order update	Ini	itial	Ad	ction	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chie	f Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data					•							
Equip/Tooling												
Operator												
Material	_											
Setup												
Other												
Process												
Supplier Training												
Unapproved												
опоррточес		<u>t </u>	1 1			AULT	CATE	GORY			1	
Landir	ng Gear				General							····
	Bending				Bend		arain			Ovalized		Pressure/Forced
	Centre No	ot Concer	ntric to (o/s	BOM/Route	П	lardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Ir	nspecti	on Incomplete		Part Incorre	ct	Weld
	Crushed/	Crimped.			Burrs	lr.	nstruct	ions Incomplete,	/Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination	∐^	//ainte	nance		Part Moved		
ļ	Heat Trea	it		<u></u>	Countersink	Ш٨	∕iislabe	led		Positioned V		
1	Inspection		Tube		Cut Too Short		Лisreac	d	<u> </u>	Power Loss/	Surge	Other
Ļ	Ripples in			<u> </u>	Drill Holes		Offset					
	Torque W			` <u> </u>	Drawing	⊢—		Calibration				
	Turning S	urning Sequence Finish			Out of S	Sequence						

Outside Dimensions

Date:

DQA:

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

February-21-13 12:40:51 PM

Work Order ID:

97699

Parent Item:

D2353

Parent Item Name:

Stiffener

Start Date: 3/18/13

Required Date: 3/18/13

Page 1

Start Qty: 12.00

Required Qty: 12.00

Comments:

IPP Rev: A Removed from 9 Digit 05-11-10 EC

IPP: B 06.11.15 waterjet IPP: c 06.12.07 ecn 836

EC

ec

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.050		Purchased	No			100	sf	240.0000	0.1463	1.848	- 4./	12.03	1 . 10
2024-T3 .050 sheet											_/n/	(/ 5 ' 0)	· 10
				Location		Loc Qty	Lo	c Code					
				MAT022		240							

240

124643

NCR: Y	es / No				WORK ORDER NON-	CON	FORM	AANCE / UPI	DATE	·		
										QA Closed:	Da	ite:
Work Orde	er:				DISPOSITION				AGAINST D	EPARTMENT	PROCESS	
Part N	lo.				Rework Scrap Use-as-is		r	Skid-tube Machining noforming	Crosstube Small Fab Finishing		Water Jet d. Eng. Coor. e/Packaging	Quality
NCR N	lo				Work Order Update]		Large Fab	Composite] Recyston	Supplier	
Root				Descri	ption of work order update	In	itial	Act	tion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chie	ef Eng	Descr	ription	Date	Verification	n QC Inspector
Doc/Data								İ				
Equip/Tooling								I				
Operator								I				
Material		1						1				
Setup								: 1				
Other								1				
Process	_		,									
Supplier								1				
Training												
Unapproved		<u> </u>										
						FAULT	CATE	3ORY				
Landir	ng Gear				General				_	¬		□- <i>"</i> .
-	Bending			_ ,_	Bend	-	Grain		ļ	Ovalized		Pressure/Forced
}	Centre N	ot Concer	ntric to (^{D/S}	BOM/Route	\vdash	Hardwa 		<u> </u> -	Over/Under		Temperature/Cure
}	Cracks				Broken/Damaged	-		on Incomplete		Part Incorre		Weld
}	Crushed/	Crimped.			Burrs			ions Incomplete/l	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
}	Cuffs			<u> </u>	Contamination			nance		Part Moved	M	
}	Heat Trea			<u> </u>	Countersink		Mislabe		-	Positioned V	-	
-	Inspectio	•	Tube	<u> </u>	Cut Too Short	\vdash	Misread	i	L	Power Loss/	Surge	Other
}	Ripples ir	,		-	Drill Holes	-	Offset	5 (9)		 		
l	Torque V	/aves in E	extrusion	1	Drawing	1 (Jut of C	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

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DART AEROSPACE LTD	Work Order:	97699
Description: Stiffener	Part Number:	D2353
Inspection Dwg: D2353 Rev: C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

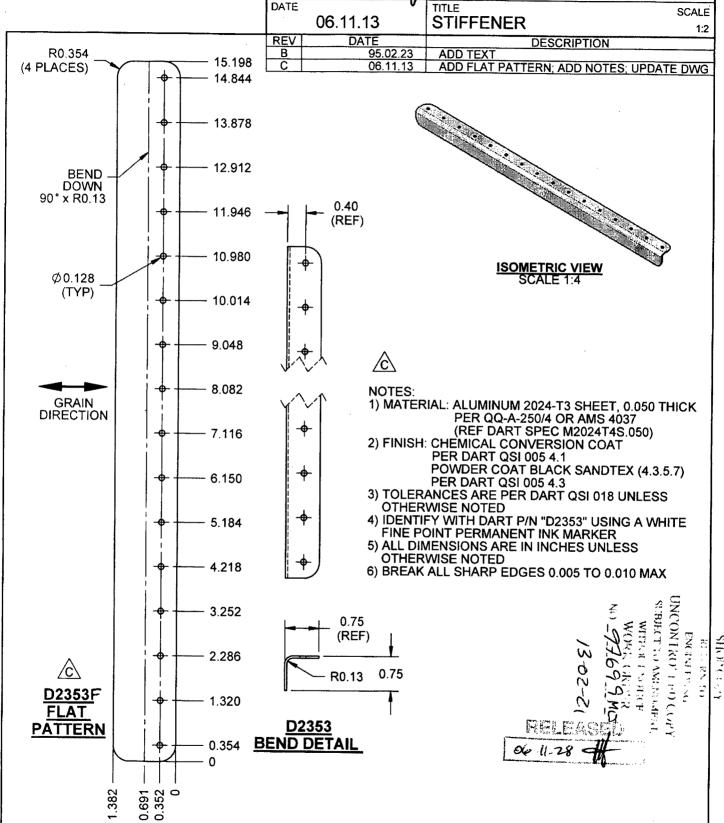
X	First Article		Prototype
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Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
15.198	+/-0.010	15.198			MT Ver Ver Ver	MM.02
0.966	+/-0.005	Q.967	4		ver	MM-02
0.354	+/-0.010	0.351	/		VWN	
0.128	+0.005/-0.000	0.133	/		ver	
					"-	
				-	· · · · · ·	
					,	

Measured by:	WIN	Audited by:	Prototype Approval:	N/A
Date:	15.03.10	Date: 1331)	Date:	N/A

Rev	Date	Change			Revised by	Approved
A	04.06.25	New Issue	P/O D350-616-015	,	KJ/JLM	1
В	06.12.20	Dwg Rev. updated			KJ/JLM	all.





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